

Mineral Industry Surveys

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TUNGSTEN IN APRIL 2007

U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder, was 8% higher during January through April 2007 than net production during the same period in 2006, according to the U.S. Geological Survey.

Total U.S. reported consumption of ferrotungsten, tungsten metal powder, tungsten carbide powder, tungsten scrap, and other tungsten materials during January through April 2007 was nearly equal in amount to that consumed during the same period in 2006. These materials were used to make alloys, cemented carbides, mill products, catalysts, and pigments.

U.S. trade data for March 2007 are published in this issue.

Update

Prices for tungsten ore concentrates, in dollars per metric ton unit from Metal Bulletin, are listed below. Prices in dollars per short ton unit were converted from metric-ton-unit prices and rounded to the nearest dollar. These prices represent combined prices for wolframite and scheelite ore concentrates with a minimum tungsten trioxide (WO_3) content of 65%. The prices for May 1-31, 2007, are as follows:

Low—\$160/metric ton unit WO_3 (\$145/short ton unit WO_3)
High—\$170/metric ton unit WO_3 (\$154/short ton unit WO_3)

TABLE 1
U.S. SALIENT TUNGSTEN STATISTICS¹

(Metric tons, tungsten content)

Period	Concentrate				Reported scrap consumption	Intermediate products			
	Reported consump- tion	Imports for consumption	Stocks, end of period Industry ²	U.S. Gov- ernment ³		Net production ⁴	Reported consump- tion ⁵	Stocks, end of period Industry ⁶	U.S. Gov- ernment ³
2006:									
April	W	133	W	25,000	405	719	1,050	739	266
May	W	161	W	24,500	493	687	1,070	792	266
June	W	185	W	24,100	338	716	991	770	266
July	W	230	W	24,100	248	556	871	758	266
August	W	91	W	24,100	(7)	673	1,030	768	266
September	W	180	W	23,300	(7)	720	1,000	773	266
October	W	212	W	23,100	266	668	1,020	766	266
November	W	256	W	22,900	343	650	958	761	266
December	W	289	W	22,900	353	646	960	827	266
January-December	W	2,290	XX	XX	4,370	8,050 ^r	12,000	XX	XX
2007:									
January	W	266	W	22,900	439	659	1,020	872	266
February	W	322	W	22,400	317	649	1,020	844	266
March	W	420	W	22,200	433	862	1,030	809	266
April	W	152	W	22,200	385	789	1,020	746	266
Total	W	1,160	XX	XX	1,570	2,960	4,090	XX	XX

^rRevised. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Reported by consumers.

³Data from Defense National Stockpile Center. Includes material committed for sale pending shipment.

⁴Net production of tungsten metal powder and tungsten carbide powder.

⁵Includes estimates and scrap.

⁶Data for tungsten metal powder and tungsten carbide powder reported by producers.

⁷Withheld to avoid disclosing company proprietary data; included in "Total."

TABLE 2
U.S. PRODUCTION, CONSUMPTION, AND STOCKS OF
AMMONIUM PARATUNGSTATE, BY MONTH¹

(Metric tons, tungsten content)

Period	Production	Consumption	Stocks, end of period ²
2006:			
April	W	930	177
May	W	1,190	114
June	W	1,010	60
July	W	753	56
August	W	830	78
September	W	992	36
October	W	1,010	67
November	W	900	67
December	W	866	W
January-December	W	11,300	XX
2007:			
January	W	941	98
February	W	886	83
March	W	1,140	37
April	W	W	101
Total	W	W	XX

W Withheld to avoid disclosing company proprietary data.

XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Producers and consumers.

TABLE 3
U.S. PRODUCTION AND STOCKS OF TUNGSTEN PRODUCTS¹

(Metric tons, tungsten content)

Product ³	Net production ²				Stocks at end of period		
	2007			Year to date	2007		
	2006	March	April		2006	March	April
Metal powder	3,260	382	345	1,300	411	421	380
Tungsten carbide powder	4,800	480	444	1,660	415	388	366
Total	8,050 ^r	862	789	2,960	827	809	746

^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Receipts plus gross production less quantity used to make other products in table.

³Data for cast and crystalline tungsten carbide powder and tungsten chemicals are withheld to avoid disclosing company proprietary data; not included in "Total."

TABLE 4
U.S. REPORTED CONSUMPTION OF TUNGSTEN, BY END USE^{1, 2, 3}

(Metric tons, tungsten content)

End use	2007		
	March	April	Year to date
Steels	21	20	85
Superalloys	W	W	W
Other alloys (excludes steels and superalloys) ⁴	W	W	W
Cemented carbides ⁵	546	536	2,170
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	464	461	1,840
Total	1,030	1,020	4,090

W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Does not include materials used in making primary tungsten products.

³Includes estimates.

⁴Includes welding and hard-facing rods and materials, wear- and corrosion-resistant alloys, and nonferrous alloys.

⁵Includes diamond tool matrices, cemented and sintered carbides, and cast carbide dies or parts.

TABLE 5
U.S. REPORTED CONSUMPTION AND CONSUMER STOCKS OF TUNGSTEN MATERIALS¹

(Metric tons, tungsten content)

Period	Ferro- tungsten	Tungsten metal powder	Tungsten carbide powder	Tungsten scrap	Other tungsten materials ²	Total
Consumption:						
2006:						
April	19	W	535	W	6	1,050
May	19	W	553	W	6	1,070
June	20	W	539	W	6	991
July	21	W	537	W	6	871
August	22	W	536	W	6	1,030
September	20	W	537	W	6	1,000
October	28	W	538	W	6	1,020
November	20	W	546	W	6	958
December	20	W	534	W	6	960
January-December	245	W	6,490	W	72	12,000
2007:						
January	20	W	538	W	6	1,020
February	21	W	532	W	6	1,020
March	20	W	536	W	6	1,030
April	19	W	531	W	6	1,020
Total	79	W	2,140	W	24	4,090
Stocks:						
2006:						
April	23	26	366	35	9	458
May	22	25	367	43	9	466
June	24	25	372	48	9	478
July	23	29	372	41	9	473
August	21	27	351	45	9	454
September	20	25	355	40	9	449
October	19	26	357	35	9	446
November	20	26	354	32	9	440
December	18	26	355	34	9	442
2007:						
January	19	28	361	36	9	452
February	17	28	356	31	9	441
March	19	14	353	38	9	433
April	18	13	360	36	9	436

W Withheld to avoid disclosing company proprietary data; included in "Total."

¹Includes estimates.

²Includes tungsten chemicals.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF TUNGSTEN, BY COUNTRY¹

(Metric tons, tungsten content)

Period and country of origin	Ores and concentrates	Ammonium tungstates	Ferrotungsten	Metal powder	Tungsten carbide powder	Other ²	Total	Total, year to date
2006	2,290	2,900	265	1,740	1,600	1,770	10,600	XX
2007:								
January	266	232	16	221	160	203	1,100	1,100
February	322	83	58	60	97	107	726	1,820
March:								
Austria	--	--	--	--	--	2	2	7
Belgium	--	--	--	--	(3)	1	1	3
Bolivia	113	--	--	--	--	--	113	426
Canada	150	--	--	20	36	(3)	205	323
China	--	255	31	4	18	59	366	1,140
Germany	--	5	--	47	6	9	67	189
Hong Kong	--	--	--	--	--	2	2	4
India	--	--	--	--	--	1	1	17
Israel	--	--	--	48	34	9	91	200
Japan	--	--	--	1	--	5	6	12
Korea, Republic of	--	--	--	18	(3)	(3)	18	48
Peru	28	--	--	--	--	--	28	81
Portugal	82	--	--	--	--	--	82	165
Russia	--	--	--	--	--	1	1	15
Rwanda	31	--	--	--	--	--	31	83
Singapore	--	--	--	--	--	4	4	9
Thailand	16	--	--	--	--	--	16	46
Other	--	--	--	--	(3)	2	2	91
Total	420	260	31	138	95	94	1,040	2,860
Total, year to date	1,010	575	104	418	352	403	2,860	XX

XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes other unwrought tungsten, wrought tungsten, calcium and other tungstates, tungsten oxides, tungsten chlorides, other tungsten compounds, ash and residues containing mainly tungsten, and other mixtures of inorganic compounds containing tungsten. Tungsten content estimated in part.

³Less than 1/2 unit.

Note: Imports of waste and scrap in March 2007 totaled 58 metric tons, tungsten content, to give a year-to-date total of 143 metric tons, tungsten content.

Source: U.S. Census Bureau.

TABLE 7
U.S. EXPORTS OF TUNGSTEN, BY COUNTRY¹

(Metric tons, tungsten content)

Period and country of destination	Ores and concentrates ²	Ammonium tungstates	Metal powder ²	Tungsten carbide powder	Other ³	Total	Total, year to date
2006	130	350	959	1,010	2,670	5,130	XX
2007:							
January	--	84	71	124	96	375	375
February	9	55	68	111	110	354	729
March:							
Australia	--	--	(4)	2	1	4	6
Austria	--	--	--	--	1	1	2
Brazil	1	--	2	1	4	7	17
Canada	--	--	6	15	8	29	85
China	(4)	--	(4)	(4)	1	1	8
Colombia	--	--	--	--	1	1	1
Czech Republic	--	--	--	--	2	2	7
Denmark	--	--	--	--	3	3	6
France	--	--	1	15	1	17	48
Germany	--	56	39	28	10	133	479
India	--	--	(4)	3	(4)	3	11
Israel	--	--	5	--	5	10	10
Italy	--	--	1	1	(4)	2	5
Japan	--	--	(4)	2	18	20	30
Mexico	(4)	--	(4)	--	34	35	64
Netherlands	--	--	--	--	1	1	2
Philippines	--	--	--	--	5	5	5
Singapore	--	--	1	(4)	2	3	9
South Africa	--	--	1	8	--	8	9
Spain	--	--	(4)	--	1	1	3
Sweden	--	--	15	4	3	23	61
Taiwan	--	--	(4)	15	11	26	37
United Kingdom	--	--	1	13	33	47	182
Venezuela	--	--	1	7	--	8	14
Other	--	--	1	2	1	3	19
Total	1	56	75	115	145	392	1,120
Total, year to date	10	195	215	349	352	1,120	XX

XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Tungsten content estimated from reported gross weight.

³Includes unwrought tungsten, including bars and rods obtained simply by sintering, wrought tungsten, ferrotungsten, and other tungstates. Tungsten content estimated in part.

⁴Less than ½ unit.

Note: Estimated exports of waste and scrap in March 2007 totaled 276 metric tons, tungsten content, to give a year-to-date total of 405 metric tons, tungsten content.

Source: U.S. Census Bureau.